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AUTHOR Hasenpflug, Thomas R.
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ABSTRACT

The new environment implies a new structure for both planning and designing school facilities. Such an environment is the manifested difference between those buildings designed for learning and those designed for teaching, which becomes evident by the measure of flexibility of the facility itself and of the people within it. This new environment will succeed if designers recognize that flexibility requires (1) product awareness, both of building materials and furnishings; (2) openness that can be closed; (3) utilization of both horizontal and vertical space dimensions; (4) recognition that a school, if it is to serve the community, must be planned for more functions than merely that of housing a particular group of grade levels; and (5) recognition that, with individualization as the key, the unique purpose of the special new environment in school facilities is to create a climate and a facility for self-motivation. (Author)

SPEECH: THOMAS R. HASENPFLUG

OCCASION: AMERICAN MANAGEMENT ASSOCIATION CONFERENCE, AUGUST 3, 1972 AMERICANA HOTEL, NEW YORK CITY

TITLE: PLANNING EDUCATIONAL FACILITIES: THE NEW ENVIRONMENT

Sometime after accepting to speak about the title assigned, "Planning Educational Facilities: The New Environment", I called AMA Conference Program Coordinator, Ray Lenoue, for a clarification of syntax. Did he mean that the new environment referred to a new environment for planning, or did it refer to the new environment of educational facilities themselves? I received the predictable answer, "It could be both", so I plan to address myself briefly to the planning environment as well as the facilities environment. The majority of comments will, however, be most closely associated with the latter.

When we talk of the "new" environment, we assume that there was an "old" environment which was somehow different. The old environment for planning educational facilities had as its backbone a rather explicit line structure for decision making. In most cases contributions of ideas and opinions were received, were judged, and were then accepted, modified, or rejected by those in undisputed authority. Citizen facilities committees were called upon to assist the Board of Education in achieving its goal, and the committee structure fit into the overall planning structure with a minimum of conflict because the chief concerns were commonly accepted ones such as numbers of pupils to be housed, number and

square footage of rooms, space and equipment for the rather standardized curriculum, and, at the Board level, decisions about the type of heating to be installed, color schedules, wall and floor surfaces, proposed bonding schedules, and (that old pseudo-aesthetic question) whether the school as designed by the architect looked like a school should look and fit its physical environment. How often this last item became the major conflict area in the planning process.

The new environment for planning is, without a doubt, a much tougher one in which to operate. In most communities today, mass involvement in the planning process appears to be more of a political necessity than ever before. Major forces to contend with include teachers, the parent community, the total tax paying community, and an array of special interest groups which apparently have more power than special interest groups of the past. We can look at the number of bond issue defeats wherein a record number of refusals was recently attained; we can look at labor agreements which call for significantly more teacher and other staff involvement in the planning process than resulted from the advisory inputs formerly sought or, all too often, benignly tolerated. We look at the restraints that some of these contracts contain, such as restraints which indicate that if one building in a school district has a particular type of facility other schools must get this also. And we look at battles currently raging as to whether board or administrative judgement is acceptable to a community. In short, the "contributors" of the past now really expect to be listened to. There is often a question

of trust, and now the premises for building a school are questioned as well as the conclusions.

The district with which I am associated lost a recent school bond campaign for a number of reasons, but it is apparent that the greatest reason was the community challenge to the Board's conclusion that enrollment was increasing at such a rate as to require additional facilities. Whereas the Board and administration felt the community would accept the need for additional housing and would like to provide community opinion as to the overall type of school organization appropriate for the next few years, a great number of the community rejected the basic need. What the Board felt was self evident was not apparent to others with influence, and the bond referendum was doomed to failure at the start because of the impasse reached on the initial premise.

The new environment in facilities planning is, therefore, consistent with the activist environment of our total culture. There has developed the near abolition of the traditional line structure for planning, and decision making is becoming truly decentralized. Educators and Board members must realize this fact if they are to reverse the trend of bond referendum defeats in the future.

Turning to the old and new environments of educational facilities themselves, we may find it somewhat more easy to identify the characteristics of each. The chief characteristic of the "old environment" facility is that the major consideration in construction was that the school should be "built to last". I remember several

years ago giving a report to a group of citizens in a Massachusetts town concerning a couple of very old schools in that town. I thought the schools were unsafe and not suitable for economical renovation. At the conclusion of my report, a very elderly gentleman got up and said, "That elementary school was named after my principal, and it was a good school then, and it's a good school now." The audience applauded. The school is still being used.

A second characteristic of the old facilities environment is that they were generally conservative, and such conservatism was an actual source of pride throughout the community. These schools employed a great amount of fixed equipment, and they reflected the very stable curriculum of the school. One could sense the feeling of permanence. Another characteristic is that these schools reflected in their design the orderly movement of students to and from specialized areas such as the junior high wing, the "up" or the "down" staircase, the library, the shop . . . . . all meticulously scheduled for the year. The custodian knew he could sweep a certain corridor at 1:45 daily, because no one would be in it.

It is quite an indictment of school facilities, and of education itself, that the two most significant facilities innovations during a period of a hundred years were improved blackboards and the movement of the "basement". From toilets in the cellar to toilets on every floor . . . . . the sum total of major structural innovation!

But what is the "new" facilities environment? Unfortunately, it's really not so new at all. Most newly constructed schools remain

as part of the "old" facilities environment, yet there is some encouragement to be obtained from a number of changes. First, it is likely that planners of new facilities have given thought to community environment and community aspirations. More and more do they realize that even a primary school can be designed to serve all ages in a neighborhood. It is only a primary school part of the time but an educational and recreational facility 16 to 18 hours a day all year long.

Second, "new environment" facilities respond to technological progress, thus providing new efficiencies and, more importantly, the broadening of an individualized curriculum.

Third, more schools are becoming servicable the year round.

Fourth, those of us who have had the opportunity to plan new facilities have found out that we like flexibility, that it provides us with a vast store of building usage options that were considerably less available when schools were built as impregnable fortresses. We have discovered new products and find that these products when used in facilities construction permit us to have more curriculum flexibility. We fight the traditional institutional look of the school facility and seek a warm and responsive environment for learning. We have learned of the potential of furniture in affecting the climate for learning. We have found out that in planning to build a school we don't just look at other schools. We look at homes, factories, airplanes, stores, display rooms, and studios to obtain ideas which are applicable in developing a learning environment. We look at color, texture, variety of space sizes, and we try to make these elements

work for us, for better education.

So much for the basic differences between the old and new environments for planning and for facilities. Of more importance is what this new environment really implies, what we can do to change towards, or work within, this environment. Several years ago an educational journal featured an article entitled "These . . . . . Schools were Designed to Serve any Forseeable Educational Programs". Underneath was a drawing of a high school with varied shaped classrooms: diamonds, squares, triangles, 5 sided rooms, curved rooms, all in one school. Did they forsee much? They had merely changed shapes and fastened them firmly to floors and ceilings. Too often have architects and educators assumed that changes in room configuration provide for present and future flexibility. Yet true structural flexibility is making some headway. We look at the work of the pioneering SCSD Program, probably now familiar to all architects and most school administrators, and we look at the work of architects like John Shaver and Warren Ashley who are just two of a growing number of architects who seem to understand that flexibility means more than simply creating something that is different from past practice.

Shaver has recently been working on the design of air support structures and is concerned with the concept of vertical as well as horizontal space development within open plan structures. For a number of years, Ashley has been opening educational space in existing structures as well as designing new open plan schools for both elementary and secondary levels. In looking at the annual exhibit of school

architecture at the 1972 AASA Convention, I concluded that the major difference between the 1972 exhibit and that of the preceding year was the great increase in the number of open, flexible, structural designs exhibited for all levels of education. For some reason the concept of openness at the elementary school level was apparently accepted by educators a few years in advance of that same concept being accepted for secondary or collegiate education.

It is my hope that eventually a number of architects and administrators will realize that the circus tent is, perhaps, the most flexible structure that has been designed to date. The circus, itself, has long taken into account both vertical and horizontal space dimensions for performance, demonstration, and learning activities. Mixed with certain obvious disadvantages, the circus tent nevertheless approaches the ultimate in movability, provision for almost instantaneous interior space rearrangement, attention to sight lines, and a potential for excitement.

"The Learning Place" is a model school which was designed by contract with the Electric Heating Association. Though it is somewhat commercially oriented, The Learning Place model is certainly worth studying in order to open the mind of a would-be school planner and get his creative wheels grinding. Likewise, to hear John Shaver talk about air structures . . . . . he speaks of them as "buildings woven in the factory" . . . . . is very helpful. Or, delve into the vertical aspects of open planning, the use of porta-domes

to define flexible, isolated, interior space, or other concepts which are no longer nearly as futuristic as they were 5 years ago. Use the mini-bibles of EFL (those are the ones with thick paper stock covers), or read their "epistles" which are published rather regularly as part of the Schoolhouse series of pamphlets.

I recently heard John Bremer talking about the curriculum of an open school. He said, "Take time, space, subject matter and social organization and out of them provide a structure for learning." He was focusing on a learning structure, not a building structure, but how apt it is to use these same elements in designing the structural environment. As a matter of fact, the problems encountered in changing the facilities environment are the same, or very similar to, problems one finds in attempting to make curriculum change. There is the problem of what to change. Is the "tried and true" of the past and present to remain the "tried and true" of the future? There is the problem of what to change to, the necessity to hypothesize on the validity of something prior to its inauguration. There is the problem of preparing for change, a complex problem which stresses human involvement, materials, and development of a favorable climate for change. There is the problem that some changes are doomed to failure. Although in most changes we aim for efficiency, economy, and simplicity, we so often work out some of the most complicated ways to achieve our goals and, consequently, make them failures from the outset. A New York Times book review column about David Rogers' book, 110 Livingston Street, had a headline, "Fiddling While the System Burns". This is the great danger we face in considering either curriculum or

facilities change.

We are further faced with the problem of recognizing gadgetry, whether it be technology for teaching or a part of a building's equipment or structure. We face the problem of salesmanship, of getting the story to the public and obtaining support for our program. And finally, whether we're talking about curriculum change or changing the environment of a facility, we face the problem of learning the lesson that changes made now will influence future changes. So often this lesson has not been learned in time to avoid disaster.

It is a legitimate question to ask whether nowadays it is really possible for long term planning of facilities. Are there not other forces that make it ever more difficult to determine even the basic size of a single structure? Are not the questions unanswerable, at least those questions about social forces, educational program changes, extended school year proposals, schools without walls or "parkway" type schools, shortened periods for high school training, neighborhood kindergartens and primary schools, centralized versus de-centralized occupational education facilities, and the like? Speculation about futures is one of the most vigorating exercises around and both broadens and liberalizes the speculators, but it might not help them make any more valid decisions of size or shape.

If Glen Cove Superintendent, Bob Finley, were here, he would have told you to build a school for the superintendent after the next one . . . . . a structure which has "a built-in second guess".

It's a tremendous line but is not, I'm afraid, reality. About the only way to achieve this is to make all interior space in a school completely flexible (which is fine unless we take the work "complete" too seriously. If we do, we may pay through the nose for the ultimate in flexibility, and most places would reject such expenditure.)

As a general statement of planning philosophy, however, Finley's "built-in second guess" idea is the basic ingredient for effective decision making in facilities planning. Decisions about school construction must, and so often do not, consider the present and the intermediate term future as being equally important. Decisions should permit a future change of course. Thus, a school should not be designed as a permanent anything except, perhaps, as a permanent shelter from the elements. Fluidity is the key concept in school design.

The decisions "for now" as opposed to the decisions "for the future" must nevertheless be made. Matters of specific curriculum, administrative organization, scheduling of time, basic educational philosophy are still important; but the solutions to these immediate problems must recognize certain potential constraints on future programming, and these constraints can be minimized by the "for now AND for the future" problem solving approach. A simple example may help to make this clear. Suppose for now I am commited to an egg crate elementary school with a sink in each classroom, and I want the area near the sink to be protected on the floor with material different from that in the reading corner area of the room. Easy to design now; hard to change later . . . . . unless I speculate now about

what might happen at a future date when someone else makes a decision to change the educational concept my currently traditional facility implies. If I take the future into consideration, I can still have my sinks and hard and soft surface areas, and even my egg crate. But I can also provide . . . . . through demountable partitioning, through thoughtful location of the sinks, through consideration of logical extentions of floor surfaces beyond walls, and through judicious placement of various floor surfaces . . . . . the opportunity for my educational opposite to introduce his program economically and realistically when the time comes.

To some of you this may be an over simplification; certainly planning of this nature is not fool proof because we cannot reach the ultimate flexibility and satisfy everyone. We can, however, go well beyond what we have traditionally done to provide a facility serviceable for a school both now and in the future.

There seems to me to be great potential in pursuing more vigorously the possibility of designing schools to become non-schools, or, conversly, to design non-educational facilities for industry which may well become excellent school facilities in the future. Many non-schools are currently in operation as schools, but they, too, would better serve today's school needs if thought was given at the time of their construction that they might become schools. The implications are particularly important as we note nowadays more pronounced changes in birthrate patterns, or as we see some suburbs becoming smaller while others, a county away, are in the midst of rapid growth.

The "for now - for the future" approach is a viable, even essential, planning methodology. Too few people make use of it.

To sum up, I have tried to indicate that the so-called new environment implies both a new structure for planning and a new structure for designing school facilities. This new environment will not be successfully introduced if we merely try to be jazzy to get something different. It will be successful if it recognizes that flexibility requires:

(1) product awareness . . . . . both of building materials and furnishings.

(2) openness that can be closed (instead of the other way around).

(3) utilization of both horizontal and vertical space dimensions.

(4) recognition that a school must be planned for more functions than merely to house any particular group of grade levels if it is to serve the community.

and (5) with individualization as the key, recognition that probably the unique purpose of the special new environment in school facilities is to create a climate and facility for self-motivation . . . . . something we have only begun to scratch the surface of.

As Warren Ashley has said, "Buildings must be designed for learning more so than for teaching." There is a difference, and that difference becomes evident by the measure of flexibility of the facility itself and of the people within it.